



The Croydon Chronicle

Winter 2016

Letter from the Supervisor

Winter is a magical time of year. There's nothing like the hush in the forest after freshly fallen snow or the beauty of a lone northern cardinal sitting on a frost covered branch. This season brings to mind what Aristotle wrote: "In all things of nature there is something of the marvelous."

It's one of the best times to take a hike and really see some of nature's mysteries. Look high into bare tree branches and you may find a nest belong to a squirrel or hornet queen. Closely examine tree trunks for buck rubs that will tell you a male deer has been there. Cast your eyes to the ground and look for the familiar tracks of birds, foxes and deer. It is amazing how much there is to see even when nature seems to be at rest.

Here at the nature center we've developed a menu of programs to help

you take a closer look at our own winter wonderland. New this winter is our **Critters Up Close** program which will feature a different live animal each month and a fun craft for participants to make.

Have a scout in the family? We are offering a **Junior Girl Scouts Animal Habitats** badge program on Feb. 7 and a **Webelos: Earth Rocks** badge program on March 6. We also offer customizable programs for scout groups of all ages. Just call us and we are happy to work with you to meet your needs and develop the perfect program for your group.

If you are an early childhood educator (for ages 3-7yrs) we have the **Growing Up Wild Teacher Workshop** on Jan 25. This 3-hour workshop is packed with hands-on nature activities for your classroom. Each participant

will receive a 128 page curriculum guide filled with activities and other resources correlated with NAEYC standards.

Bookworms is back with new books, "Over and Under the Snow" and "Little Owl Lost" on Feb. 28 and March 13. At each program we'll read a new story and participants will get a copy of the book to take home. Each program will also include a craft or a hike, weather permitting.

We hope you'll spend some time with us at CCNC this winter. Stop by to say hello, hike our trails, visit the animals or enjoy one of our many programs. You are always welcome here!

Best regards,

Elissa Totin

Nature Center Supervisor

Croydon Creek Nature Center

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240-314-8770

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E-mail

ccnc@rockvillemd.gov

Hours of Operation

Tuesday through Saturday,
9 a.m. to 5 p.m.

Sunday, 1-5 p.m.

Closed Mondays

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Pasta Snowflakes

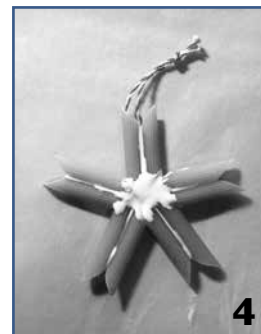
You will need:

- 10 dry penne pasta
- Wax paper
- Clear drying glue (ex. school glue)
- String
- Glitter glue and/or paint

Directions:

1. Lay a small piece of wax paper on the table; this is your work surface. As you glue together the pasta pieces, lay them on the wax paper.
2. Glue together the penne pasta in 5 pairs, so that each pair is pointed at one end and v-shaped at the other end.
3. Arrange 4 of the pairs radially so that the pointed ends touch in the middle.
4. Before gluing the 5th pair in place, loop a string through both pieces of pasta and tie.
5. You can embellish the snowflakes with glitter glue or paint.
6. When the glue is completely dry (this may take a few hours), peel the snowflake off the wax paper. You can carefully peel or trim off some of the excess glue and any stuck-on wax paper.

Materials



Use other pasta shapes to make different types of snowflakes:
<http://www.fabartdiy.com/how-to-diy-pasta-snowflake-ornament-for-christmas/>

Get Outside and Participate!

Citizen science projects are a fun way to participate in large-scale scientific research projects right in your own neighborhood. These projects rely on the help of amateur scientists around the nation and even around the globe to gather data for their projects. These projects are easy to participate in and a great way to contribute to science and learn something new. Below are some of our favorite projects. Find a more extensive list at <https://www.scientificamerican.com/citizen-science/> for other projects that might pique your interest!

Great Backyard Bird Count - <http://gbbc.birdcount.org/>
February 12-15. Observe birds in your backyard or local park for at least 15 minutes and then submit your observations online. Participation is simple and submitting results is easy. Find instructions on how to observe, easy bird identification tools and how to submit your data on the website.

Project BudBurst - <http://budburst.org/>

Observe plants in your community and notice how they change with the seasons. Collect data on the leafing, flowering and fruiting phases of the plants. Observations can be taken spring through fall. Learn more about how to participate on the website.

FrogWatch USA - <https://www.aza.org/frogwatch/>

Participate in FrogWatch USA and learn about the wetlands in your community and the herps that inhabit them. Learn calls of local frogs and toads through an online training course or a short class and then go out in the field and collect data during evenings from February through August. Check their website to find out more about in person training sessions or the online training course.

It's a Marshmallow World...

By Tim Iverson,
Naturalist

The lyrics of a popular holiday song describe the typical scene for us during the winter months: "It's a marshmallow world in the winter, when the snow comes to cover the ground." While this can be the typical scene for northern climates during the winter months many are not fond of it. Animals have three options when confronting this prospect: hibernate, migrate, or adapt. Basically it's a love it or leave it prospect, and the hardship that comes during the winter months can be hard to contend with and survive.

Hibernation is an adaption that helps mammals and reptiles alike survive the winter months. During hibernation metabolic rates essentially come to a



grinding halt. Heart rate can drop to as little as 3 percent of normal rate. For example, a chipmunk will go from 200 to five heartbeats per minute during hibernation. Breathing can slow to half (or more) of the usual rate, with some species stopping breathing entirely. Every living thing burns energy all the time simply by being alive. It takes energy to walk, sleep, breathe, and even to think! Mammals spend a lot of their energy just regulating body temperature. So in order to get enough energy to do all these things we eat. But during the winter plants stop producing fruit and food is all around a lot harder to come by. So, in order to conserve energy, mammals and reptiles will hibernate.

Animals can't undergo this process without a lot of work and forethought

though. They must spend a great deal of time building up fat reserves during the summer and fall months and will sometimes even store food in close and easily accessible locations to eat during the winter.

Hibernation isn't really very similar to sleep though. These animals virtually lose all consciousness and are nearly impossible to wake up. The primary difference between sleep and hibernation basically boils down to what the body is doing. During sleep there are minor physiological changes to the body, it's mostly mental change. It's also very easy to wake up from sleep, whereas hibernation is nearly impossible making these animals susceptible to predation. Brain activity is actually very similar during hibernation compared with normal active brain activity. Hibernation just brings animals to the lowest possible metabolic rates they can stand so they require nearly no energy. Animals are given natural cues to start hibernating when the days get shorter and colder. This is the same time that other animals, mostly birds, begin travelling south.

Taking a vacation to warmer climates is another appealing way to spend the winter if you're not able to hibernate. If you can't find enough food to survive where you are then you can go somewhere else to get it. Birds and insects, like the monarch butterfly, can travel thousands of miles to find suitable wintering grounds. Year after year these critters find the same locations. Scientists believe this is done by navigating with the sun, moon, and stars. They also seem to have the amazing ability to sense the magnetic field of the earth, which they use like a compass. It's not just birds or insects who migrate south though. Fish, whales, elk, and some species of bats also migrate south. Instead of

migrating south, earthworms migrate deeper. They can go down to as far as 6 feet under the top soil, where the temperature is much more regular and habitable for them.

The final way to survive the winter months is to adapt. These animals will have to make serious changes and work even harder during these tough winter times to survive. It varies from species to species as to what it will take. Deer and rabbits forage underneath snow



cover to find food. If the temperature drops significantly deer will gather close together in dense tree stands using body warmth to wait out the cold. Hawks, owls, and fox will also continue to hunt for their food. Beavers and squirrels will store up food during the summer and fall months to snack on throughout the long cold winter months.

Other ways animals prepare for this time is by putting on extra weight. Most animals add an additional layer of fat that helps to insulate the body against the cold. Many animals will shed their fur or molt their feathers and grow a thicker winter coat to assist in insulating body heat.

Whether you weather the weather by hunkering down, relocating, or by simply toughing it out, the forest will be bustling with activity again in just a few short months. If you can't migrate with monarchs and hang out in Mexico for three months just remember that, "the sun is red like a pumpkin head; it's shining so your nose won't freeze."

Nature Center Camps 2016

Week-long camps start June 20 and run until August 24.

Full and half day options are available

Spend your summer at the Nature Center!



**Hike in the forest, hunt bugs in the meadow
and wade in the creek!**

**View the Camp Guide online at
www.rockvillemd.gov/camps**

5-7 year olds

Art of Nature

Guppy Nature Camp

5-8 year olds

New! Nature Play Camp



7-10 year olds

New! EcoInvestigators

9-12 year olds

New! Nature Play Camp

10-14 year olds

**New! Farm to Table
Nature Service Learning**

www.rockvillemd.gov/croydoncreek • **240-314-8770**

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852 Avery Road

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The Croydon Chronicle

Winter Programs

Bookworms (Adult/Child)

Curl up with a good book at the Nature Center. At each Bookworm program, we'll read a new story and you'll get a copy of the book to take home. Each program may include a craft or hike. Children must be accompanied by an adult.

Over and Under the Snow - Age: 2-5

53389 Su 2/28
1:30-2:15 PM \$10/\$12

Little Owl Lost - Age: 2-5

53390 Su 3/13
1:30-2:15 PM \$10/\$12

New! Critters Up Close (Adult/Child)

This is for all of the animal lovers who want to take a closer look at some of the amazing animals that live at the Nature Center. Each program will feature a different live creature and include a live animal interpretation and craft. Children must be accompanied by an adult.

Age: 2-6

53953	Sa	1/23	10-10:45 AM	\$3/\$5
53954	Sa	2/27	10-10:45 AM	\$3/\$5
53955	Sa	3/12	10-10:45 AM	\$3/\$5

Croydon Creek Campfire (Adult/Child)

Gather around the campfire with your friends for stories, snacks and more. An adult must accompany children and all participants must register.

Spring Night Hike - All Ages

Enjoy a night time hike into the forest to look and listen for signs of spring. After the hike, we'll gather around the campfire to enjoy a campfire treat.

53951	Sa	3/19	7:30-8:30 PM	\$5/\$6
53952	Sa	3/19	8-9 PM	\$5/\$6

Growing Up Wild Teacher Workshop

Early childhood educators: Join us for a fun-filled, practical workshop packed with hands-on, experiential nature activities for your classroom. Each participant will receive a free Growing Up WILD: Exploring Nature With Young Children curriculum guide correlated with NAEYC standards. Advance registration required. Cost covers program supplies.

Age: 18+

53950 M 1/25 9 AM-12 PM \$15

Nature Tots (Adult/Child)

Spend time with your child discovering the wonders of nature. A naturalist will help you explore a new nature topic through nature play, crafts, stories and hikes. Dress for the weather. This program is intended to provide special one-on-one time for you and your child. Adult participation required. Spaces are limited. Ages 2-5 yrs.

Winter Wonders

53939 Th 1/28 10-11:30 AM \$8/\$10

Owls

53940 Sa 2/13 10-11:30 AM \$8/\$10

Foxes

53941 Th 2/25 10-11:30 AM \$8/\$10

Frogs and Toads

53942 Sa 3/5 10-11:30 AM \$8/\$10

Welcome Spring

53943 Th 3/24 10-11:30 AM \$8/\$10

Price key: Resident Discount/Regular Rate

Croydon Creek Nature Center • 852 Avery Rd, Rockville, MD, 20851

Phone

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City of
Rockville
Get Into It

Hours of Operation

Tuesday through Saturday,
9 a.m. to 5 p.m.

Sunday, 1-5 p.m.

Closed Mondays

Nature Camps

Art of Nature

Hikes and nature play are the inspiration for making works of art that utilize a variety of artistic techniques, mixed media and eco-friendly supplies. Campers will observe, explore and collaborate to get their creativity flowing and hone their artistic skills to make masterpieces inspired by nature.

Age: 5-7

9 AM-3 PM

54348

8/15-8/19

\$215/\$245

New! EcoInvestigators

Curious about creatures? Fascinated by forests? Crazy about creeks? Then this camp is for you! Spend your days investigating local habitats through a variety of activities, field studies, and experiments. Camp may include an off-site field trip.

Age: 7-10

9 AM-3 PM

54335

6/27-7/1

\$225/\$255

54336

7/25-7/29

\$225/\$255

New! Farm to Table

Like food and love to cook? This camp will explore the connection between the land and our food. In excursions to local farm fields and the Chesapeake Bay we will discover first-hand where our food comes from and how what we choose to eat impacts the world around us. Using local foods from the places we visit we will learn easy recipes and cooking techniques from Chef Eng of Clyde's Tower Oaks Lodge and then put our skills to the test in a cooking challenge. End the week with a farm fresh feast at Clyde's.

Age: 10-14

9 AM-4 PM

54337

6/20-6/24

\$335/\$385

Guppy Nature Camp

Interested in animals that creep, crawl and flap? Meet the critters that call Croydon Creek home and explore exciting nature topics. Hands-on activities, experiments, hikes and crafts are all in a day's fun.

Age: 5-7

9 AM-12 PM

54338

6/20-6/24

\$102/\$122

54340

7/11-7/15

\$102/\$122

54343

8/8-8/12

\$102/\$122

9 AM-3 PM

54339

6/27-7/1

\$203/\$240

54341

7/18-7/22

\$203/\$240

54342

7/25-7/29

\$203/\$240

Like us on Facebook

Croydon Creek
Nature Center

SCOUT BADGE DAYS



JUNIOR GIRL SCOUTS

ANIMAL HABITATS

Sunday, Feb. 7, 2-4 p.m.

WEBELOS

GEOLOGIST (EARTH ROCKS) BADGE

Sunday, March 6, 2-4 p.m.

Naturalists will help you complete the necessary requirements to achieve the badges.

All materials provided; however, badges are not supplied by the nature center. Programs held rain or shine. Dress for the weather.

Cost: \$14 residents; \$16 non-residents

For additional information or to register, call Melinda Norton at **240-314-8771**.

New! Nature Play Camp

Make the most of these last few days of summer break by spending it outdoors at CCNC. Each day will provide participants with opportunities to connect with nature through naturalist-led activities as well as unstructured open-ended discovery and creative play.

Age: 5-8

8:30 AM-5:30 PM

54349

8/22-8/24

\$180/\$220

Age: 9-12

8:30 AM-5:30 PM

54350

8/22-8/24

\$180/\$220

Nature Service Learning Camp

Have fun at Croydon Creek while earning Student Service Learning (SSL) hours. Participants will investigate local environmental issues each morning. In the afternoon they will complete an eco-friendly volunteer project. Each person will receive 10 SSL hours total.

Age: 10-14

9 AM-3 PM

Soil Conservation

54344

7/11-7/13

\$120/\$140

Water Conservation

54345

8/1-8/3

\$120/\$140